

## INTERNATIONAL SEARCH REPORT

PCT/GB 03/02864

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7	A61K31/444	C07D213/73	C07D213/65	C07D405/12	C07D401/12
	C07D213/74	C07D409/12	C07D417/12	C07D241/18	C07D241/20
	C07D403/12	C07D403/14	C07D241/24	C07D417/14	C07D413/12

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, BEILSTEIN Data, CHEM ABS Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 96 23783 A (DAVIES DAVID THOMAS ;GASTER LARAMIE MARY (GB); WYMAN PAUL ADRIAN () 8 August 1996 (1996-08-08) page 67, line 1-12; claim 1; example 139 -----	1,3-12
A	AI JENG LIN, KRISHNA C. AGRAWAL AND ALAN C.SARTORELLI: "Potential Antitumor Agents.8. Derivatives of 3- and 5-Benzylxy-2-formylpyridine Thiosemicarbazone" J.MED.CHEM., vol. 15, no. 6, 1972, pages 615-618, XP002257159 schemes 1-3 examples XII,,XIVA -----	2,13-321
X	AI JENG LIN, KRISHNA C. AGRAWAL AND ALAN C.SARTORELLI: "Potential Antitumor Agents.8. Derivatives of 3- and 5-Benzylxy-2-formylpyridine Thiosemicarbazone" J.MED.CHEM., vol. 15, no. 6, 1972, pages 615-618, XP002257159 schemes 1-3 examples XII,,XIVA -----	1,3-12
A	-----	2,13-32
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 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

## \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- \*&\* document member of the same patent family

Date of the actual completion of the international search

17 October 2003

Date of mailing of the international search report

29/10/2003

Name and mailing address of the ISA

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 IPC 7 C07D401/14 C07D498/04 A61K31/4439 A61K31/4436 A61K31/4412  
 A61P29/00

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Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DATABASE CROSSFIRE BEILSTEIN 'Online! Beilstein Institut zur Förderung der Chemischen Wissenschaften, Frankfurt am Main, DE; Database accession no. 4435702 XP002257160 abstract & G.S.PONTICELLO, E.L.ENGELHARDT, M.B.FREEDMAN, J.J.BALDWIN: J. HETEROCYCL. CHEM., vol. 17, 1980, pages 445-448, ---	1,3-12
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 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

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- \*A\* document defining the general state of the art which is not considered to be of particular relevance
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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DATABASE CROSSFIRE BEILSTEIN 'Online! Beilstein Institut zur Förderung der Chemischen Wissenschaften, Frankfurt am Main, DE; Database accession no. 5938191 XP002257161 abstract & E. MARCHI, L.MONTECCHI, A.P.VENTURINI, G.MASCELLANI, M.BRUFANI, L.CELLAI: J. MED. CHEM., vol. 28, no. 7, 1985, pages 960-963, ---	1,3-12
A		2,13-32
X	DATABASE CROSSFIRE BEILSTEIN 'Online! Beilstein Institut zur Förderung der Chemischen Wissenschaften, Frankfurt am Main, DE; Database accession no. 4421226 XP002257162 abstract & J.J.KAMINSKI, A.J.BRISTOL, C.PUCHALSKI, R.LOVEY, A.J. ELLIOTT: J. MED. CHEM, vol. 28, no. 7, 1985, pages 876-892, ---	1,3-12
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A	WO 00 18738 A (BROWN GEORGE ROBERT ;ZENECA LTD (GB); BROWN DEARG SUTHERLAND (GB)) 6 April 2000 (2000-04-06) page 2, line 20 -page 3, line 9; claims; tables IV-COMPOUND-4 ---	1-32
A	EP 1 180 518 A (TAKEDA CHEMICAL INDUSTRIES LTD) 20 February 2002 (2002-02-20) page 64, line 50 -page 69, line 25; claims 1,15-17,35,36,39,40; example 1 ---	1-32
A	WO 00 25791 A (SMITHKLINE BEECHAM CORP ;ADAMS JERRY L (US); BOEHM JEFFREY C (US);) 11 May 2000 (2000-05-11) claims ---	1-32
P,X	WO 02 081475 A (GRACZYK PIOTR ;BHATIA GURPREET (GB); KHAN AFZAL (GB); PALMER VANES) 17 October 2002 (2002-10-17) page 14 page 27 page 28 page 26; claim 19 -----	1,3-12
P,A		2,13-32

# INTERNATIONAL SEARCH REPORT

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## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:  
Although claims 31-32 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2.  Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:  
see FURTHER INFORMATION sheet PCT/ISA/210
3.  Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1.  As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3.  As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4.  No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

### Remark on Protest

- The additional search fees were accompanied by the applicant's protest.  
 No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

The initial phase of the search for claims 1-12 revealed a very large number of documents relevant to the issue of novelty. So many documents were retrieved that it is impossible to determine which parts of the claim 1 may be said to define subject-matter for which protection might legitimately be sought (Article 6 PCT). For these reasons, a meaningful search over the whole breadth of the claim 1 is impossible. Consequently, the search has been restricted to compounds of formula IIa and IIb, as defined in claim 13. The functional term "prodrug" as used in claim 27 does not enable the skilled person to determine which technical features are necessary to perform the stated function. It is thus unclear which specific compounds fall within the scope of the said claim (Article 6 PCT). Consequently, the search does not include prodrugs of compounds of formula IIa or IIb.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

## INTERNATIONAL SEARCH REPORT

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Patent document cited in search report		Publication date		Patent family member(s)	Publication date
WO 9623783	A	08-08-1996		AP 657 A AT 197300 T AU 699727 B2 AU 4664696 A BG 101806 A BR 9607016 A CA 2212061 A1 CZ 9702445 A3 DE 69610822 D1 DE 69610822 T2 DK 808312 T3 EA 304 B1 WO 9623783 A1 EP 0808312 A1 ES 2151652 T3 FI 973205 A GR 3035075 T3 HK 1003883 A1 HU 9901115 A2 IL 116998 A JP 10513442 T NO 973543 A NZ 301265 A PL 321706 A1 PT 808312 T RO 115522 B SI 808312 T1 SK 103897 A3 TR 9700749 T1 US 6235758 B1 US 2003105139 A1 US 5990133 A ZA 9600758 D	06-08-1998 15-11-2000 10-12-1998 21-08-1996 30-04-1998 28-10-1997 08-08-1996 16-09-1998 07-12-2000 07-06-2001 12-02-2001 29-04-1999 08-08-1996 26-11-1997 01-01-2001 01-10-1997 30-03-2001 31-08-2001 28-07-1999 08-08-2001 22-12-1998 01-10-1997 23-12-1998 22-12-1997 30-03-2001 30-03-2000 28-02-2001 04-02-1998 21-02-1998 22-05-2001 05-06-2003 23-11-1999 30-09-1997
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## INTERNATIONAL SEARCH REPORT

PCT/GB 03/02864

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